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| APPLICATION NO.   | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO.  |
|---|---------------|----------------------|---------------------|-------------------|
| 10/532,211  | 06/08/2005    | Yasuo Suzuki         | 2005_0700A          | 6772              |
| 513   | 7590          | 06/28/2007           | EXAMINER            |                   |
| WENDEROTH, LIND & PONACK, L.L.P.<br>2033 K STREET N. W.<br>SUITE 800<br>WASHINGTON, DC 20006-1021 |               |                      |                     | BOESEN, AGNIESZKA |
| ART UNIT  | PAPER NUMBER  | 1648                 |                     |                   |
| MAIL DATE   | DELIVERY MODE | 06/28/2007           | PAPER               |                   |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/532,211             | SUZUKI ET AL.       |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Agnieszka Boesen       | 1648                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 08 June 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-19 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) \_\_\_\_\_ is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) 1-19 are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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## DETAILED ACTION

### *Election/Restrictions*

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Claims 1-5 link(s) inventions I-XXX. The restriction requirement between the linked inventions is **subject to** the nonallowance of the linking claim(s), claims 1-5. Upon the indication of allowability of the linking claim(s), the restriction requirement as to the linked inventions **shall** be withdrawn and any claim(s) depending from or otherwise requiring all the limitations of the allowable linking claim(s) will be rejoined and fully examined for patentability in accordance with 37 CFR 1.104 **Claims that require all the limitations of an allowable linking claim** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

Applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, the allowable linking claim, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the

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provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Group I, claim 6, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ia** and an R substrate consisting of a **hydrogen atom**.

Group II, claim 6, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ia** and an R substrate consisting of a substituent having an **S, N, O, or P atom**.

Group III, claim 6, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ia** and an R substrate consisting of a **hydrocarbon group**.

Group IV, claim 6, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ia** and an R substrate consisting of a **lipid**.

Group V, claim 6, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ia** and an R substrate consisting of a **protein**.

Group VI, claim 6, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ia** and an R substrate consisting of a **synthetic polymer**.

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Group VII, claim 7, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ib** and an R substrate consisting of a **hydrogen atom**.

Group VIII, claim 7, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ib** and an R substrate consisting of a substituent having an **S, N, O, or P atom**.

Group IX, claim 7, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ib** and an R substrate consisting of a **hydrocarbon group**.

Group X, claim 7, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ib** and an R substrate consisting of a **lipid**.

Group XI, claim 7, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ib** and an R substrate consisting of a **protein**.

Group XII, claim 7, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ib** and an R substrate consisting of a **synthetic polymer**.

Group XIII, claim 8, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ic** and an R substrate consisting of a **hydrogen atom**.

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Group XIV, claim 8, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ic** and an R substrate consisting of a substituent having an **S, N, O, or P atom**.

Group XV, claim 8, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ic** and an R substrate consisting of a **hydrocarbon group**.

Group XVI, claim 8, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ic** and an R substrate consisting of a **lipid**.

Group XVII, claim 8, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ic** and an R substrate consisting of a **protein**.

Group XVIII, claim 8, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ic** and an R substrate consisting of a **synthetic polymer**.

Group XIX, claim 13, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Id** and an R substrate consisting of a **hydrogen atom**.

Group XX, claim 13, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Id** and an R substrate consisting of a substituent having an **S, N, O, or P atom**.

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Group XXI, claim 13, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Id** and an R substrate consisting of a **hydrocarbon group**.

Group XXII, claim 13, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Id** and an R substrate consisting of a **lipid**.

Group XXIII, claim 13, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Id** and an R substrate consisting of a **protein**.

Group XXIV, claim 13, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Id** and an R substrate consisting of a **synthetic polymer**.

Group XXV, claims 16 and 17, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ie** and an R substrate consisting of a **hydrogen atom**.

Group XXVI, claims 16 and 17, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ie** and an R substrate consisting of a substituent having an **S, N, O, or P atom**.

Group XXVII, claims 16 and 17, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ie** and an R substrate consisting of a **hydrocarbon group**.

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Group XXVIII, claims 16 and 17, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ie** and an R substrate consisting of a **lipid**.

Group XXIX, claims 16 and 17, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ie** and an R substrate consisting of a **protein**.

Group XXX, claims 16 and 17, drawn to a dengue virus infection inhibitor characterized by containing as an active ingredient an oligosaccharide chain represented by formula **Ie** and an R substrate consisting of a **synthetic polymer**.

Group XXXI, claim 12, drawn dengue virus inhibitor containing a **monoclonal antibody** with specificity to the oligosaccharide represented by formula **Ia**.

Group XXXII, claims 10 and 12, drawn to a monoclonal antibody and a dengue virus inhibitor containing a **monoclonal antibody** with specificity to the oligosaccharide represented by formula **Ib**.

Group XXXIII, claims 11 and 12, drawn to a monoclonal antibody and a dengue virus inhibitor containing a **monoclonal antibody** with specificity to the oligosaccharide represented by formula **Ic**.

Group XXXIV, claims 14 and 15, drawn to a monoclonal antibody and a dengue virus inhibitor containing a **monoclonal antibody** with specificity to the oligosaccharide represented by formula **Id**.

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Group XXXV, claims 18 and 19, drawn to a monoclonal antibody and a dengue virus inhibitor containing a **monoclonal antibody** with specificity to the oligosaccharide represented by formula **Ie**.

The inventions listed in groups I-XXXV do not relate to a single general inventive concept under PCT Rule 13.1 because they lack the same or corresponding special technical features for the following reasons: the special technical feature of the claimed invention is a dengue virus infection inhibitor comprising an oligosaccharide chain and an R substrate and monoclonal antibodies against oligosaccharides. Marks et al., (US Patent 6,197,568 B1) disclose dengue virus infection inhibitor comprising an oligosaccharide chain and an R substrate. Kinders et al., (EP 316764A) disclose monoclonal antibodies against oligosaccharides.

Since Applicant's invention does not contribute a special technical feature when viewed over the prior art they do not have a single inventive concept and thus the claims lack unity of invention. Therefore, the instant invention lacks Unity of Invention and restriction is set forth as it applies to U.S. practice.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

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application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agnieszka Boesen whose telephone number is 571-272-8035. The examiner can normally be reached on M-F from 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell can be reached on 571-272-0974. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*AB*

Agnieszka Boesen, Ph.D.

/Stacy B. Chen/ 6-25-2007  
Primary Examiner, TC1600